

Biology

Homeostasis

Definition - The ability of the body or a cell to seek and maintain a condition of equilibrium or stability within its internal environment when dealing with external changes.

What does that mean?

It means that homeostasis is a condition of everything working at just the right level for a body, cell, etc. to work properly. It's also the ability of that body, cell, or system to respond to changes in its environment and reacquire equilibrium.

An Example of Homeostasis

Say we have a cell, and it has just the right amount of nutrients coming in to feed it. If the environment suddenly becomes too full of a specific nutrient, the cell will lessen the amount of that nutrient it allows in, so that it can maintain its homeostasis.

In the human body, an excellent example of homeostasis in action is the action of insulin and glucagon on sugar in the blood. If there is too much sugar in the blood, insulin will be released in order to have the sugar stored out of the blood. If there is too little sugar in the blood, glucagon will trigger the release of stored sugar. The two hormones help to maintain homeostasis as it relates to blood sugar.

